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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/501,201	07/28/2005	Bo-Hyung Cho	4366-044592	3582	
• • • • • • • • • • • • • • • • • • • •	7590 12/29/2006 AW FIRM, P.C.	i	EXAMINER		
700 KOPPERS	BUILDING		VO, TUYET THI		
436 SEVENTH AVENUE PITTSBURGH, PA 15219 ART UNIT		ART UNIT	PAPER NUMBER		
	•		2821		
SHORTENED STATUTOR	Y PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MO	NTHS	12/29/2006	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

				AV.		
		Application No.	Applicant(s)	——————————————————————————————————————		
Office Action Summary		10/501,201	CHO ET AL.			
		Examiner	Art Unit			
		Tuyet Vo	2821			
Period fo	The MAILING DATE of this communication app or Reply	ears on the cover sheet with the	correspondence address	s		
WHIC - Exter after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DATE of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. It is specified above, the maximum statutory period were to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION Be(a). In no event, however, may a reply be for its apply and will expire SIX (6) MONTHS from the cause the application to become ABANDON	DN. timely filed m the mailing date of this commun IED (35 U.S.C. § 133).	·		
Status						
1)⊠	Responsive to communication(s) filed on 07 No	ovember 2005.				
2a) <u></u> ☐	This action is FINAL . 2b)⊠ This action is non-final.					
3)[Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
	closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 4	153 O.G. 213.			
Dispositi	on of Claims	•				
5)□ 6)⊠ 7)□ 8)□	Claim(s) 1-29 is/are pending in the application. 4a) Of the above claim(s) is/are withdraw Claim(s) is/are allowed. Claim(s) 1-29 is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/or on Papers					
9) 🗆	The specification is objected to by the Examine	f.				
·	The drawing(s) filed on is/are: a) acce		Examiner.			
	Applicant may not request that any objection to the	drawing(s) be held in abeyance. So	ee 37 CFR 1.85(a).			
11)	Replacement drawing sheet(s) including the correcti The oath or declaration is objected to by the Ex-		-	, ,		
Priority u	ınder 35 U.S.C. § 119					
12) ⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ⊠ All b) ☐ Some * c) ☐ None of: 1. ☑ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☑ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.						
Attachment	• •	△ □ labanian 0	(DTO 442)			
	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Summar Paper No(s)/Mail D				
3) 🛛 Inform	nation Disclosure Statement(s) (PTO/SB/08) No(s)/Mail Date	5) Notice of Informal 6) Other:	Patent Application			

DETAILED ACTION

This is a response to the applicant's filing on July 09, 2004 with original claims 1-29 currently presented in the instant application.

Specification

The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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- 2. Claims 1-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.
- 3. Claims 1 and 4-10, recitation of "energy recovery unit" are found not fully described in the specification so as this feature can be identified through drawings by its designated numerical reference while the term of "a first energy recovery unit" and "a second energy recovery unit" appeared in claim 14 mean to include different elements in while lacking of detail supported from the specification.
- 4. The remain dependent claims are rejected due to their virtual dependency on the defective claims 1, 4-10 and 14.

Correction made to claims 1, 4-10 and 14 would also alleviate unclearness toward dependent claims as well.

- 5. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 6. Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 14, recitation of "allowing a charge and/or discharge current" appeared in several places in the claims 1 and 14 cause a confusion. Since charge and

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discharge function cannot be allowed/operated/applied at the same time. Either charge or discharge function can take place alternately or at alternate time.

7. Claims 2-13 and 15-29 are rejected due to their virtual dependency on the defective claims 1 and 14.

Correction made to claims 1 and 14 would also alleviate unclearness toward dependent claims as well.

Allowable Subject Matter

Applying prior arts or commenting a merit of allowability toward the claim invention will be provided upon a response to this office action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyet Vo whose telephone number is 571 272 1830.

The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571 272 1740. The fax phone numbers for the organization where this application or proceeding is assigned are 571 273 8300 for regular communications and for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571 272 2800.

Information regarding the status of an application or status information for publicing/unpublicing applications may be obtained from the Patent Application Information Retrieval (PAIR) system, see http://pair-direct.uspto.gov. Should you have questions on access to the PAIR system, contact the Electronic Business Center (EBC) at toll free 866-217-9197.

Tuyet Vo

Primary Examiner

December 26, 2006